



Ergonomics Health and Safety

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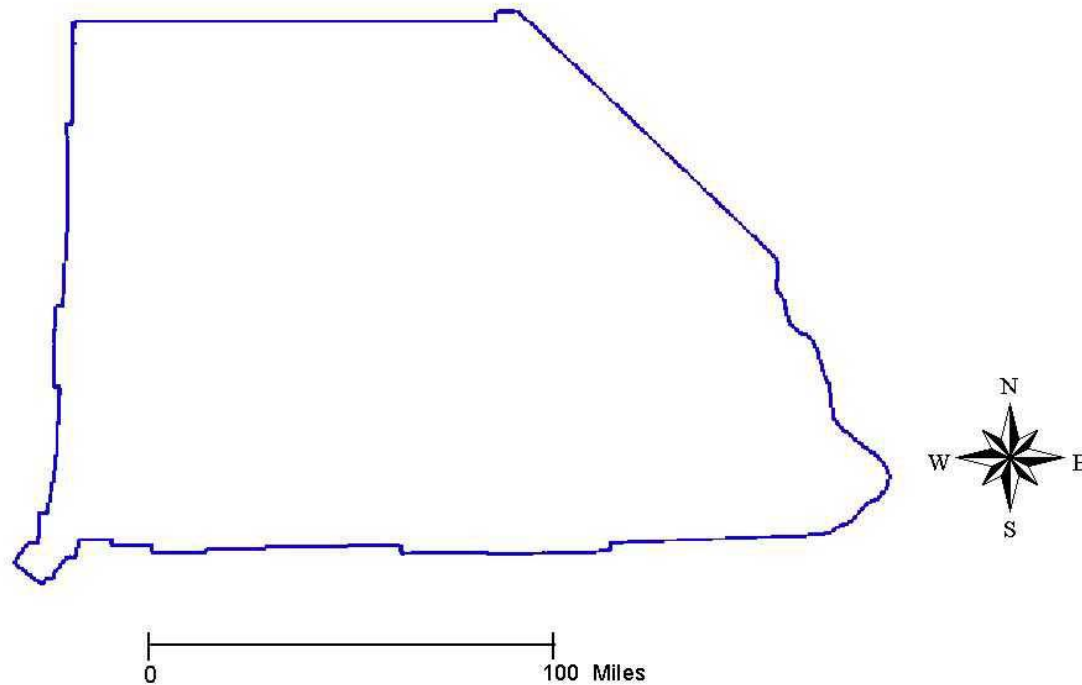
San Bernardino County HHW Program



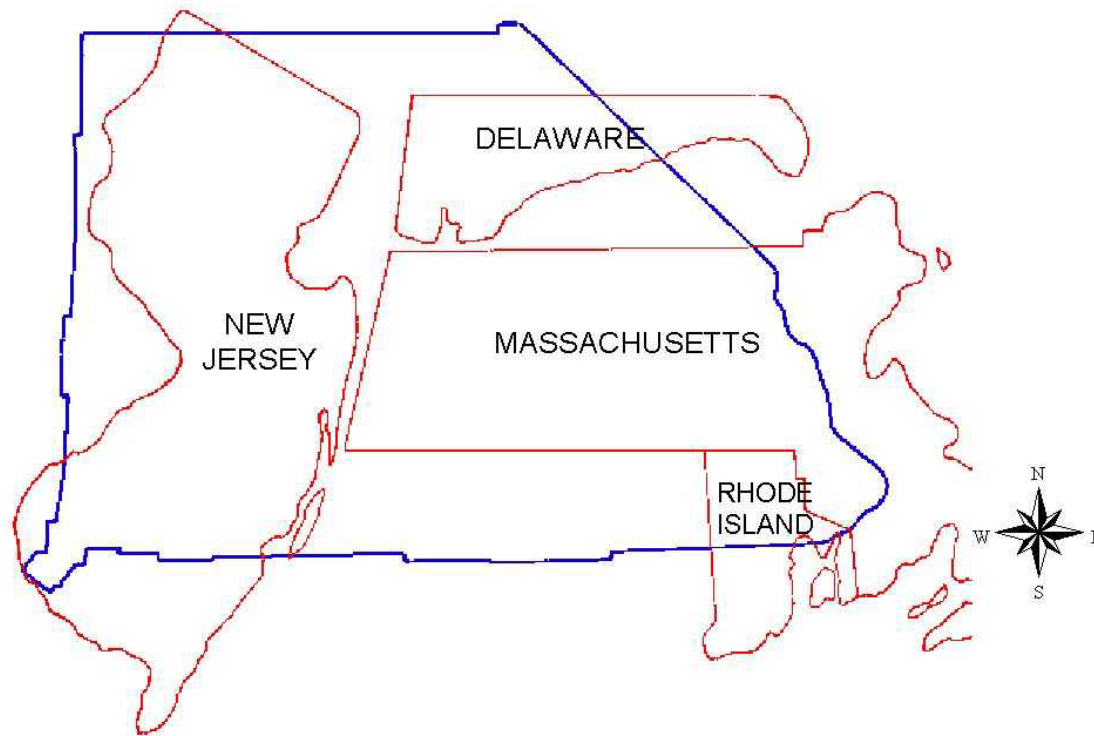
Introduction

- **San Bernardino County**
 - **Over 20,000 square miles in size**
 - **1.7 million population**
 - **Could fit four states inside its boundaries**

San Bernardino County



San Bernardino County





Introduction

- **Three Water Board Regions**
- **Two Air Quality Management Districts**
- **Unique challenges in terms of service**



Operations

- **Regional between County and 23 cities**
- **E-waste, CESQG and Material Re-use**
- **Latex paint recycling and distribution**
- **2.3 million pounds waste**
 - **31,014 participants and 141 CESQGs**
- **\$2.3 million Budget**
- **Central vs. Satellite facilities**

Ergonomics Issues

- **Physical vs. Chemical injuries**
- **Definitions**
 - **“Ergon”-Greek-human work and strength**
 - **“Nomos”-Greek-law or rule**
 - **Ergonomics-The design and study or work**
(www.neutralposture.com)
 - **The study of relationship between workers and their environment especially the equipment they use.**
(www.wordreference.com)



Working Definition

- **The study of work and the relationship of work to the mental and physical capabilities of people. Fitting the job (tools, tasks and environment) to the worker so that the needs of the worker are met, instead of forcing the worker to fit the job. (www.neutralposture.com)**
- **A challenge at San Bernardino County HHW Central Facility**
 - **No control over shapes and sizes coming into a facility**

Shapes and sizes



Shapes and sizes



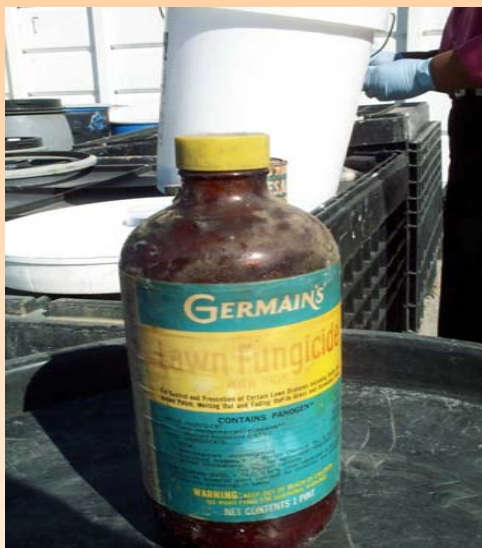
Shapes and sizes



Shapes and sizes



Shapes and sizes



Definition that Fits

- **An applied science, concerned with designing and arranging things people use, so that people and things interact most efficiently and safely.**

(*<http://ls.berkeley.edu> and*

www.hyperdictionary.com)

Unloading Carts



Battery Boxes



Fork-lifting full battery box



Paint can crusher



Bulking paint



Bulking paint





Hazard Mitigation

- **Engineering control**
 - **cost**
- **Administrative Control**
 - **Employee buy-in**
 - **Paint bulking rotation**
 - **Inclement weather**

Drum grabber



Drum inverter



Double Drum Grabber



Drum Tilt



Pallet Jack



Portable Forklift



Portable Forklift



Portable Forklift



Portable Forklift



Portable Forklift



Around the facility



Portable Loading Dock





Training

- **Care of the back**
- **Tools and equipment**
- **Safe workplace practices**
- **Workplace evaluation**
 - **OSHA**
 - **Risk Management**
 - **Prevent is better than cure**

Office Staff

